IT IS CLAIMED:

1. A method of antitumor therapy, comprising administering to a subject in need of such treatment, a therapeutically effect amount of a combination of components encapsulated in liposomes, wherein said components comprise a chemotherapeutic drug and an immunostimulating cytokine.

2. The method of claim 1, wherein said administering produces a greater therapeutic effect than a combination of the effects produced by the liposome-encapsulated components administered individually.

3. The method of claim 1, wherein the liposomes contain about 1-10 mole percent of a lipid having a polar head group derivatized with a polyethylene glycol (PEG) chain which has a molecular weight of between 750 and 10,000 daltons.

4. The method of claim 1, wherein the liposomes contain at least one lipid selected from the group consisting of dimyristoyl phosphatidyl choline, dimyristoyl phosphatidyl glycerol, 1,2-distearoyl-3-trimethylammonium propane, phosphatidyl choline, phosphatidyl ethanolamine, and cholesterol.

5. The method of claim 1, wherein the chemotherapeutic drug is encapsulated in vesicles having a mean diameter of approximately 50 to 120 nm, and containing about 1-10 mole percent of a lipid having a polar head group derivatized with a polyethylene glycol (PEG) chain which has a molecular weight of between 750 and 10,000 daltons.

6. The method of claim 1, wherein the chemotherapeutic drug is selected from a chemotherapeutic anthraquinone, cis-platin, and a topoisomerase I inhibitor.

7. The method of claim 6, wherein the chemotherapeutic anthraquinone is adriamycin.

8. The method of claim 6, wherein the topoisomerase I inhibitor is camptothecin or a camptothecin analog.

9. The method of claim 7, wherein the chemotherapeutic drug encapsulated in liposomes is DOXIL®.

10. The method of claim 1, wherein the cytokine is selected from the group consisting of

interleukin-2 (IL-2), IL-12, IL-15, IL-18, IFN-γ, IFN-α, IFN-β, TNF-α, G-CSF, and GM-CSF.

11. The method of claim 10, wherein the cytokine is IL-2.

12. The method of claim 1, wherein the cytokine is encapsulated in liposomes comprising dimyristoyl phosphatidyl choline plus 0 - 50 mole percent of at least one lipid selected from dimyristoyl phosphatidyl glycerol and 1,2-distearoyl-3-trimethylammonium propane.

13. The method of claim 1, wherein administration of the liposome-encapsulated cytokine follows administration of the liposome-encapsulated chemotherapeutic drug.

14. A method of antitumor therapy, comprising administering to a subject in need of such treatment, a therapeutically effect amount of a combination of a chemotherapeutic drug and an immunostimulating cytokine, wherein the chemotherapeutic drug is encapsulated in liposomes which contain about 1-10 mole percent of a lipid having a polar head group derivatized with a poly-ethylene glycol (PEG) chain which has a molecular weight of between 750 and 10,000 daltons.

15. The method of claim 14, wherein said administering produces a greater therapeutic effect than a combination of the effects produced by the liposome-encapsulated drug and the cytokine administered individually.

16. The method of claim 14, wherein the chemotherapeutic drug is selected from a chemotherapeutic anthraquinone, cis-platin, and a topoisomerase I inhibitor.

17. The method of claim 16, wherein the chemotherapeutic anthraquinone is adriamycin.

18. The method of claim 17, wherein the chemotherapeutic drug encapsulated in liposomes is DOXIL®.

19. The method of claim 14, wherein the topoisomerase I inhibitor is camptothecin or a camptothecin analog.

20. The method of claim 14, wherein the cytokine is selected from the group consisting of interleukin-2 (IL-2), IL-12, IL-15, IL-18, IFN-γ, IFN-α, IFN-β, TNF-α, G-CSF, and GM-CSF.

21. The method of claim 20, wherein the cytokine is IL-2.

22. The method of claim 14, wherein administration of the cytokine follows administration of

the liposome-encapsulated chemotherapeutic drug.

23. A composition for use in antitumor therapy, comprising a combination of components encapsulated in liposomes, wherein said components comprise a chemotherapeutic drug and an immunostimulating cytokine.

24. The composition of claim 23, wherein said combination is effective to produce, in a tumor-afflicted subject, a greater antitumor effect than a combination of the effects produced by the liposome-encapsulated components administered individually.

25. The composition of claim 23, wherein the chemotherapeutic drug is encapsulated in liposomes containing about 1-10 mole percent of a lipid having a polar head group derivatized with a polyethylene glycol (PEG) chain which has a molecular weight of between 750 and 10,000 daltons.

26. The composition of claim 23, wherein the chemotherapeutic drug is selected from a chemotherapeutic anthraquinone, cis-platin, and a topoisomerase I inhibitor.

27. The composition of claim 26, wherein the chemotherapeutic anthraquinone is adriamycin.

28. The composition of claim 27, wherein the chemotherapeutic drug encapsulated in liposomes is DOXIL®.

29. The composition of claim 23, wherein the cytokine is selected from the group consisting of interleukin-2 (IL-2), IL-12, IL-15, IL-18, IFN-γ, IFN-α, IFN-β, TNF-α, G-CSF, and GM-CSF.

30. The composition of claim 29, wherein the cytokine is IL-2.

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